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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,969	07/03/2001	Ramesh Lhila	6001-44-1	9960

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EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

8

DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/898,969

Applicant(s)

LHILA, RAMESH

Examiner

Hai Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_.

1. Claims 21-40 have been cancelled in the amendment received on 02/25/02.

***Claim Objections***

2. Claim 7 is objected to because of the following informalities: the term "ethylene" on line 2 is misspelled. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 10-14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887). Ko discloses a pressure sensitive adhesive tape comprising a foam layer laminated to a layer of a pressure sensitive adhesive (column 14, lines 17-19). Ko teaches a foam layer containing from 80 parts to 99 parts of an alkyl acrylate monomer, 20 parts to 1 part of a copolymerizable modifier monomer and 5 to 65 volume percent of glass microspheres (column 14, lines 33-43). Ko further teaches an acrylic copolymer in the foam layer including two different acrylic monomers and two different copolymerization modifier monomers (column 14, lines 27-32). In addition, the examiner maintains the position that the claims do not require the first and the second monomers be different. Thus, the claimed weight percent of each

monomer is essentially meaningless. Applicant's arguments of page 13 of the response received on 02/25/02 are flawed because it requires the examiner to assume applicant's intentions, i.e. read limitations into the claims that aren't there. Ko does not specially disclose amount of glass microspheres that meets a specific range as set forth by the claims. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of glass microsphere in the foam layer since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisan to have optimized the amount of glass microsphere motivated by the desire to obtain a pressure sensitive adhesive tape having substantial improvement in low temperature performance. With regard to claims 2-4, Ko discloses the foam layer further comprising up to 5 parts by weight of a photoinitiator and up to 5 parts by weight of a crosslinker (abstract and column 14, lines 26-33). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of a photoinitiator or the amount of a crosslinker in the foam layer since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisan to have optimized the amount of each monomer and the amount of a photoinitiator or the amount of a crosslinker in the

foam layer motivated by the desire to obtain a pressure sensitive adhesive tape having substantial improvement in low temperature performance.

With regard to claims 5-7, Ko discloses the crosslinker being a multifunctional acrylate (column 10, line 68 et seq.).

With regard to claims 8, 10 and 16, Ko discloses the foam layer further comprising a hydrophobic silica (column 14, lines 47-49). Ko is silent as to an amount of filler being present in the foam layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have altered the amount of a filler in the foam layer since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It would have been obvious to the skilled artisan to have optimized the amount of each monomer and the amount of a filler in the foam layer motivated by the desire to obtain a pressure sensitive adhesive tape having substantial improvement in low temperature performance.

With regard to claims 11-14, and 18, Ko discloses the first alkyl acrylate monomer being isooctylacrylate and the second alkyl acrylate monomer 2-ethylhexyl acrylate (column 6, lines 40-42), the first modifier monomer acrylic acid and the second modifier monomer acrylamide (column 6, lines 64-68). Ko does not disclose the hollow microsphere is borosilicate glass. It is well-known in the glass microsphere art that borosilicate glass is a hollow microsphere. Ko teaches the photoinitiator being benzoin ethyl ether (column 10, line 32). See

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obviousness rationale in claims 1, and 2-4 regarding the amounts of the monomers and/or the amounts of additives in the foam composition.

5. Claims 9, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887) as applied to claim 1, in view of Brochman (US 3,565,247). Ko is silent as to a fumed silica as a filler in the foam layer of the pressure sensitive adhesive tape. Brochman discloses the fumed silica incorporated into the foam composition of the pressure sensitive adhesive tape (column 4, line 14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated fumed silica into the foam composition motivated by the desire to obtain an effective foaming of the composition.
6. Claims 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887) as applied to claim 1, in view of Mazurek et al (US 5,264,278). Ko is silent as to 1,4-butanediol diacrylate as a crosslinker and coloring agent as a filler. Mazurek supplies the missing features. Mazurek discloses 1,4-butanediol diacrylate incorporated into the adhesive composition as a crosslinker and a dye being used as a filler (column 11, line 43, and column 12, line 41). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated 1,4-butanediol diacrylate into the foam composition motivated by the desire to crosslink the acrylic phase to improve the internal strength of the foam composition. It would have been obvious to one having ordinary skill in the art at the time the invention was made

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to have incorporated a dye into the foam composition motivated by the desire to colorize the adhesive tape.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887) as applied to claim 1, in view of Mazurek et al (US 5,264,278) and further in view of Brochman (US 3,565,247). Ko discloses the photoinitiator being benzoin ethyl ether (column 10, line 32). Ko is silent as to the presence of fumed silica and 1,4-butanediol diacrylate in the foam composition. Mazurek discloses 1,4-butanediol diacrylate incorporated into the adhesive composition as a crosslinker (column 11, line 43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated 1,4-butanediol diacrylate into the foam composition motivated by the desire to crosslink the acrylic phase to improve the internal strength of the foam composition. Brochman discloses the fumed silica incorporated into the foam composition of the pressure sensitive adhesive tape (column 4, line 14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated fumed silica into the foam composition motivated by the desire to obtain an effective foaming of the composition. See obviousness rationale in claims 2-4 regarding the amounts of additives in the foam composition.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

9. The 112 claim rejections in Paper no. 5 have been overcome by the present amendment.


***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Monday to Friday, 8:30 to 5:00 (EAST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (703) 308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV  
May 15, 2002



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